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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,815	01/22/2004	Tette van der Lende	2183-6293US	4997

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TRASK BRITT
P.O. BOX 2550
SALT LAKE CITY, UT 84110

EXAMINER

HAGOPIAN, CASEY SHEA

ART UNIT	PAPER NUMBER
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1615

NOTIFICATION DATE	DELIVERY MODE
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03/18/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/763,815	Applicant(s) VAN DER LENDE, TETTE	
	Examiner CASEY HAGOPIAN	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/20/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of applicant's Request for Continuing Examination on 9/27/2007 and Supplemental Amendment, Declaration and IDS filed 11/20/2007.

Claims 1-3 and 5-23 are currently pending. Claims 21-23 are new.

Response to Arguments

Applicant's arguments and Declaration are primarily concerned with the prior art being silent to the particular ratios and amounts of amino acids claimed. The examiner found these arguments persuasive in part and therefore after further consideration, the examiner has cited new references that take into account the limitations that applicant previously believed to not be taught and/or rendered obvious. The new rejections can be found below under the *New Rejections* section of this Office Action. Thus, the rejection under 35 USC 103 in view of Wilson and Mahan has been withdrawn, however it has been replaced with a new rejection under 35 USC 103 in view of Wilson, Mahan and Kuroki. Also, a new rejection under 35 USC 103 in view of Watanabe has been cited.

NEW REJECTIONS

The following rejections are newly added:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 7, 10-12, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (USPN 4,738,852).

Watanabe teaches a feedstuff for increasing performance of swine including increasing milk yield, reducing the recurrence days of estrus of dams, and decreasing the number of still births and premature pigs (abstract; col. 2, lines 11-14; col. 4, lines 26-28). Watanabe particularly teaches an embodiment that contains an assorted feedstuff of corn, soybean meal, bran and vitamin and mineral elements which has the particular amino acid breakdown of 1.07% arginine, 0.66% lysine, 0.50% methionine + cystine, 0.51% threonine, and 0.16% tryptophan (Example 3). Said percentages can be translated into the following ratios relative to lysine: 1.62 arginine, 0.75 methionine + cystine, 0.77 threonine, and 0.24 tryptophan, which read on all of the instant claimed ratios.

Watanabe is silent to the particular amount of arginine being at least 200 mg.

One of ordinary skill in the art would be well versed in the teachings of the NRC and its specific teachings of the nutrient requirements of swine. Applicant's specification admits that "[u]nder normal feeding conditions, this amounts to a daily dosage of about 65-200 mg arginine per kg body weight (kg_{BW}) of the fed animal" (paragraph 0007). The range of about 65-200 mg of arginine reads on the limitation "at least 200 mg arginine" (i.e., 200 mg or more) because they are considered overlapping ranges. Thus, the amount claimed by applicant is within the normal amount that is known in the art by a skilled artisan. Therefore, in Watanabe it would have been obvious to one of ordinary skill in the art at the time the invention was made to include at least 200 mg of arginine.

Claims 1-3 and 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al. (US 2002/0051844 A1) in view of Mahan, "Digestibility of soybean meals collected at four periods from a soybean processor (Cargill) in Ohio" and further in view of Kuroki (JP 58043725, English translation).

Wilson teaches animal food compositions and methods for increasing the reproductive performance of breeding populations of swine (abstract). Wilson also teaches incorporating any animal feed blend known in the art including rapeseed meal, cottonseed meal, soybean meal, and cornmeal as well as adding amino acids to the feed blend including arginine, lysine, methionine, threonine, tryptophan, and cysteine (paragraph 0031, Examples). Wilson also teaches several methods of administration

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ranging from feeding the composition to the animals daily for their lifetime, to feeding the composition to an animal before and/or during pregnancy and/or during lactation, and so on (paragraph 0030).

Wilson does not teach specific amounts of the amino acids.

Mahan teaches that soybean meal, a well-known feed material, naturally comprises amino acids including arginine, lysine, methionine, threonine, tryptophan, and cysteine and provides percentage amounts for each amino acid (Table 2). Mahan also teaches that soybean meal naturally contains 0.20% calcium (Table 2). Table 2 teaches the following percentages: 3.56% arginine (which falls within the claimed range of instant claim 3), 2.97% lysine, 0.65% methionine, 0.76% cysteine, 0.61% tryptophan and 1.83% threonine. These percentages can be translated into ratios relative to the amount of lysine (i.e., arginine = 1.2, methionine + cysteine = 0.47, tryptophan = 0.21, and threonine = 0.61).

Kuroki teaches improving fertilization of cows by administering animal feed containing an additional 10g or more of arginine and 5g or more of lysine (pages 1 and 5). The ratio of arginine to lysine is approximately 2:1.

To summarize, Wilson contains a generic teaching of an animal feed with additional amounts of amino acids for the ultimate goal of improving fertilization while Mahan teaches the natural composition of soybean meal and its intrinsic amino acid breakdown. Kuroki further provides motivation to include the particular amino acids, arginine and lysine in order to further improve fertilization. One of ordinary skill in the art would reasonably expect the combined teachings of Wilson, Mahan and Kuroki to

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produce an animal feed that improved fertilization. Also, it is well within the knowledge of a skilled artisan to further optimize the particular amounts of amino acids in the composition by way of routine experimentation. Thus in Wilson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include additional amounts of arginine and lysine to animal feed, and if necessary, further optimize the animal feed composition in order to improve fertilization as suggested by Kuroki.

Conclusion

All claims have been rejected; no claims are allowed.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Hagopian whose telephone number is 571-272-6097. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carlos Azpuru, can be reached at 571-272-0588. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Casey Hagopian/

Examiner, Art Unit 1615

/Carlos A. Azpuru/

Primary Examiner, Art Unit 1615